

TWO NEW CALIFORNIA ACMAEODERA
(Coleoptera—Buprestidae)

By MONT A. CAZIER
University of California

ACMAEODERA ADENOSTOMAE Cazier, New Species

Small, narrow, convex; shining black above, cupreous beneath.

Female: Head shallowly punctate, punctures separated by about one-sixth of their own widths on vertex, confluent anteriorly, vertex with narrow shallow impression, front rather densely clothed with long brown hair; clypeus with anterior margin rather deeply emarginate, separated from front by prominent impression; antennae extending beyond base of pronotum, segments two and three equal, four slightly longer than two, five wider than four, six wider than five and subequal to succeeding segments. Pronotum as wide as base of elytra, one-third wider than long, apical margin emarginate, base truncate, sides nearly straight, obtusely tapering anteriorly; discal punctures separated by about their own widths, confluent laterally, oblique lateral impression shallow, ending in a prominent fovea; surface immaculate, rather densely clothed with long brown hair. Elytra convex, sides straight to apical third, then obtusely rounded to apex, side margins serrate; striae well marked on disc, shallow impression at base, humeral umbone prominent, surface moderately clothed with long brown hair; three straw-yellow fascia interrupted at middle, humeral fascia broken into large median spot and small marginal spot, middle fascia not reaching suture, slightly oblique basally, apical fascia transverse, interrupted before suture, marginal half red, inner half straw-yellow, two subapical spots situated medially. Beneath sparsely punctate, punctures separated by twice their own widths, thoracic sternites moderately clothed with long white hair, abdomen sparsely clothed; prosternum sinuate, prominent on either side of middle; last ventral segment with rather prominent pointed sub-marginal carina. Length 7.5 mm., width 2.5 mm.

Male: Same as female except for its smaller size.

Holotype female and allotype male in the author's collection, collected at Sunset Valley, Santa Barbara County, California, July 14, 1938 by the author on *Adenostoma fasciculatum*. Specimens from additional California localities are as follows: Sunset Valley, Santa Barbara County, July 4, 1937 and July 4, 1938 (B. E. White, V. L. Woolley); Pasadena, Los Angeles

County, June 10-12, 1916 (J. O. Martin), May 22, 1925, May 22-25, 1924 (E. C. Van Dyke), June 18, 1924; Hastings Natural History Reservation, Jamesburg, Monterey County, June 14, 1938 (C. D. Michener); San Jacinto Mountains, Riverside County, July 29, 1912 (J. C. Bridwell); Mt. Wilson, Los Angeles County (E. C. Van Dyke); Paraiso Springs, Monterey County, May 30, 1916 (L. S. Slevin); Gilroy Hot Springs, San Mateo County, July 4, 1928 (J. O. Martin); Pinnacles National Park, San Benito County, April 29, 1914 (L. S. Slevin); Keen Camp, Riverside County, June 6-12, 1917 (E. P. Van Duzee).

Described from a series of 107 specimens which are deposited as follows: B. E. White 27, J. J. duBois 7, L. V. Woolley 6, Frances Simes Hastings Natural History Reservation 2, San Francisco Academy of Science 38, Los Angeles Museum 4, and 23 in the author's collection. The series shows variation in the coloration of the undersurface which is cupreous-black in a few specimens, the subapical spot is occasionally half red and sometimes has a small red spot on the margin opposite it, the length varies from 6 mm. to 8:3 mm.

This species has been in many collections for years but has always been associated with *A. jocosa*, which has the markings heavier but of the same pattern, and by some has been considered as being either a seasonal form or the male of that species. During the course of a revisional study of the genus the author extracted the male and female genitalia of both of these species, along with others, and found that the female genitalia of *adenostomae* were entirely different from that of *jocosa*. The male genitalia are identical in the two as is also the case between other distinct species. Further elaboration of these genitalia studies along with illustrations will be given in a revision of the genus to be published at a later date.

Although *adenostomae* closely resembles *jocosa* in markings it is only distantly related when the form, sculpturing and female genitalia are considered. This is also true in relation to *coquilletti* Fall and *purshiae* Fisher, both of which are more closely related to *jocosa*. However, *adenostomae* does closely resemble *angelica* Fall and *angelica nexa* Fall in its general shape, sculpturing and female genitalia, differing in its heavier markings and by having the sides of the pronotum obtusely rounded and widest at middle.

ACMAEODERA ROBUSTA DUBOISI Cazier, New Subspecies

Robust, moderately depressed; elytra bluish-black with cupreous tinges, pronotum brilliant cupreous, beneath brilliant cupreous throughout.

Female: Head with punctures on vertex separated by about their own widths, confluent anteriorly, vertex with moderately prominent carinae, rather densely clothed with long white hair; clypeus with anterior margin shallowly emarginate; antennae extending backward to about basal third of prothorax, second segment shorter and more robust than third, third and fourth equal, fifth abruptly widened and equal to succeeding segments. Pronotum as wide as base of elytra, twice as wide as long, apical margin emarginate, base truncate, sides evenly obtusely rounded, widest at base, margins visible from above only at apical half; disc with median impression, punctures separated by twice their widths, becoming confluent laterally, oblique lateral impression ending in a moderately deep fovea; color brilliant cupreous, sides with pale yellow spots extending from base to apical third; surface clothed with moderately dense brown hair. Elytra with sides subparallel to apical third, then obliquely tapering to tip, side margins serrate; disc depressed, punctures arranged in indistinct striae, separated by their own widths, apical and lateral striae distinct with punctures confluent, interspaces with small punctures each of which contains a moderately long brown hair, humeral umbone prominent; color bluish-black with occasional cupreous tinges, three straw colored broken fasciae and apical spot arranged as follows; basal fasciae oblique from margin around umbone almost to base, middle and apical fasciae transverse, apical spot extending along margin almost to apical fasciae. Beneath brilliant cupreous throughout, moderately clothed with long white pile; prosternum sinuate, sparsely punctate; abdomen with only slight indication of subapical carinae, sparsely punctate. Length 9 mm., width 3.5 mm.

Male: Same as the female except for the color of the under-surface which is brilliant cupreous-purple. Length 8 mm., width 3 mm.

Holotype female and allotype male in the author's collection, collected at Furnace Creek, Death Valley, California, April 14, 1938, on *Prosopis juliflora glandulosa* by J. J. duBois after whom the author takes pleasure in naming the subspecies. Four hundred and twenty-six designated paratypes collected at the same locality by J. J. duBois, B. E. White and V. L. Woolley and deposited in their collections as well as in the collections of the California Academy of Sciences, Los Angeles Museum and the author.

This subspecies is closely related to *A. robusta* Horn and *A. robusta rubrosuffusa* Fall but is easily distinguishable from either by its straw yellow markings. In addition to this character it can be further separated from *robusta* by the color of the prothorax and undersurface which are cupreous and cupreous-purple rather than bluish-black as in *robusta*. From *robusta*

rubrosuffusa it can be distinguished by the complete lack of the red suffusion on the disc of the elytra. The markings, sculpturing, male and female genitalia show no reliable differences. *A. robusta* and subsp. *rubrosuffusa* occur on flowers of various compositae and other plants throughout Owens Valley, California, and southern Nevada and Utah, whereas *duboisii* occurs on *Prosopis* on the floor of Death Valley, California and has thus far never been collected or found associated with *robusta* or *rubrosuffusa*. The series of *duboisii* used show no indication of gradation into either *robusta* or *rubrosuffusa*.

There is a good deal of variation in several characters and the known limits of these variations are given in what is to follow; the carina on the head is occasionally very prominent and extends a short distance down the front, an occasional specimen has a small straw-yellow spot midway between the eyes on the front, the markings vary from specimens having the fasciae withdrawn from the suture and reduced, to those having the fasciae connected longitudinally and with accessory spots between them, length 7 mm. to 12 mm.

The author would like to express his thanks and appreciation to those previously cited as having contributed specimens and information pertaining to the new species herein described, to Dr. C. W. Leng whose fine collection of this genus serves as a basis for this study, to Dr. E. C. Van Dyke for loans of material from his extensive collection and to Mr. E. P. Van Duzee of the California Academy of Sciences for material loaned from the collections in his charge.

